

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

SINHA, Bikash K.

Application N°: 10/665,134

Filed: September 18, 2003

Title: DETERMINATION OF STRESS
CHARACTERISTICS OF EARTH
FORMATION



§ CUSTOMER NUMBER 37003

§ Confirmation No. 5805

§ Group Art Unit: 3672

§ Attorney Docket No.: 60.1511

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I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to: Hon. Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Ruth A. Schreiber
Ruth A. Schreiber

5/24/04
Date

INFORMATION DISCLOSURE
STATEMENT

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P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. §1.56, 1.97 and 1.98, the Applicant wishes to bring the reference materials listed in the attached Form PTO-1449 to the attention of the U. S. Patent and Trademark Office. Copies of the references are provided for the Examiner's convenience.

No representation is made or intended that a complete and exhaustive prior art search has been made, or that no better references than those set forth below are available. Furthermore, this Statement does not constitute an admission that these references are properly citable against the present application as prior art. It is respectfully requested that these references be considered by the Examiner and formally made of record in this case.

This information disclosure statement is being filed before receipt of the first office action. Therefore, applicants believe that no fees are due. However, in the event that the first office action has been mailed prior to the filing of this information disclosure statement, the Commissioner is authorized to charge Deposit Account No. 19-0615 in the amount of \$180.00, to cover the fee set forth in 37 CFR 1.17(p) for submission of an information disclosure statement under §1.97(c). The Commissioner is authorized to charge or credit any deficiency/overpayment to Deposit Account No. 19-0615. Two copies of this paper are attached.

Respectfully submitted,

Jody Lynn DeStefanis, Reg. No. 44,653

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Fax: (203) 431-5640

Date: May 24, 2004

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FORM PTO-1449		U.S. Department of Commerce Patent and Trademark Office		ACTY. DOCKET NO: 671511		SERIAL NO.: 10/665,134	
		INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT: SINHA, Bikash K.		EXAMINER:	
				FILING DATE: September 18, 2003		GROUP: 3672	

U.S. PATENT DOCUMENTS

Exam Init.		Document Number	Date	Name	Class	Sub-class	Filing date if appropriate
		6,351,991	03/05/02	Sinha	73	152.01	06/05/00
		5,838,633	11/17/98	Sinha	367	31	01/27/97

FOREIGN PATENT DOCUMENTS

Exam Init.		Document Number	Date	Country	Class	Sub-class	Translation Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	1	Esmersoy, C. et al. <i>Dipole Shear Anisotropy Logging</i> . 64th Ann. Internat. Mtg., Soc. Espl. Geophys., Expanded Abstracts, pp. 1139-1142 (1994).
	2	Harrison, A. R. et al. <i>Acquisition and Analysis of Sonic Waveforms from a Borehole Monopole and Dipole Source for the Determination of Compressional and Shear Speeds and their Relation to Rock Mechanical Properties and Surface Seismic Data</i> . Paper SPE 20557, SPE Annual Tech. Conf and Exhibition (Sept. 23-26, 1990).
	3	Hottman, C. E. et al. <i>Estimation of Formation Pressures from Log-Derived Shale Properties</i> . J. Pet. Tech, Vol. 17, No. 6, pp. 717-722 (1965).
	4	Kimball, C. V. et al. <i>Semblance Processing of Borehole Acoustic Array Data</i> . Geophysics, Vol. 49, Sec. 3, pp. 274-281 (1984).
	5	Matthews, W. R. et al. <i>How to Predict Formation Pressure and Fracture Gradient from Electric and Sonic Logs</i> . The Oil and Gas Journal, pp. 92-106 (1967).
	6	Moore, P. L. <i>Drilling Practices Manual</i> . The Petroleum Publishing Co., pp. 269-326 (1974).
	7	Mueller, M. et al. <i>Case Studies of the Dipole Shear Anisotropy Log</i> . 64th Ann. Internat. Mtg., Soc. Expl. Geophys., Expanded Abstracts, pp. 1143-1146 (1994).
	8	Norris, A. N. et al. <i>Acoustoelasticity of Solid/Fluid Composite Systems</i> . Geophys. J. Int., Vol. 118, pp. 439-446 (1994).
	9	Nur, et al. <i>An Exact Effective Stress Law for Elastic Deformation of Rock with Fluids</i> . J. of Geophys. Res., Vol. 76, pp. 6414-6419 (1971).
	10	Sinha, B. K. et al. <i>Case History Dipole Dispersion Crossover and Sonic Logs in a Limestone Reservoir</i> . Geophysics Vol. 65, No. 2 (Mar-Apr 2000) pp. 390-407.
	11	Sinha, B. K. <i>Elastic Waves in Crystals Under a Bias</i> . Ferroelectrics, Vol. 41, pp. 61-73 (1982).
	12	Sinha, B. K. et al. <i>Stress-induced Azimuthal Anisotropy in Borehole Flexural Waves</i> . Geophysics, Vol. 61, Sec. 6, pp. 1899-1907, (1996).
	13	Sinha, B. K. <i>Sensitivity and Inversion of Borehole Flexural Dispersions for Formation Parameters</i> . Geophysical Journal International, Vol. 128(1), pp. 84-96 (January 1997).
	14	Thurston, R. N. et al. <i>Third-Order Elastic Constants and the Velocity of Small Amplitude Elastic Waves in Homogeneous Stressed Media</i> . Phys. Rev., Vol. 133, A1604-A1610 (1964).
	15	Walsh. <i>The Effects of Cracks on The Compressibility of Rocks</i> . J. of Geophys. Res., Vol. 70, pp. 381 (1965).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant